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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/681,068

10/07/2003

Andrew S. Hildebrant

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10/28/2008

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EXAMINER

LEIVA, FRANK M

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

10/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/681,068	Applicant(s) HILDEBRANT ET AL.	
	Examiner FRANK M. LEIVA	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on 08 August 2008, PROSECUTION IS HEREBY REOPENED. The New ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/XUAN M. THAI/

Supervisory Patent Examiner, Art Unit 3715

Response to Arguments

2. Applicant's arguments, see Appeal Brief, filed 08 August 2008, with respect to 35 U.S.C. §101 Double Patenting, 35 U.S.C §112 and 35 U.S.C. §103 rejections have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Park et al (US 7,185,295 B2) in view Boateng (US Pub. 2002/0184587 A1) and further in view of Ohara et al. (US 2002/0143418 A1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al (US 7,185,295 B2) in view Boateng (US Pub. 2002/0184587 A1) and further in view of Ohara et al. (US 2002/0143418 A1).**

5. **Regarding US 7,185,295 B2;** Park discloses a chip testing apparatus that determines the required memory to test the vector file and to store the pin output data.

6. **Regarding US Pub. 2002/0184587 A1;** Boateng discloses that memory is one of the largest factors in cost of testers.

7. Regarding the analogous art combination; Park discloses a method and apparatus for determining the test vector memory; Boateng discloses the need to reduce memory to reduce cost; and Ohara describes a method and computer product that calculates the total theoretical cost of a project and compares it to the actual cost of

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the project. The examiner deems obvious to combine these inventions in order to show the full advantage of Park's and Boateng's invention as to show that it is obvious to use memory cost in the calculation of cost of a project of this type, and that Ohara as a generic cost analysis program would automatically include the amount of necessary memory to the cost of the project.

8. Regarding claims 1, 8 and 13; Park discloses a machine-executable method comprising; reading a test file having a plurality of test vectors; determining a required memory needed to execute the plurality of test vectors, (col. 12:9-16 and 17:1-5), determining the size of each frame buffer and chunk memory. Park is silent to calculating cost. Boateng discloses the importance of determining memory size due to the high cost of memory, (¶ [0006]); and Ohara on the other hand teaches an automated method for calculating project costs which when applied to the Park and Boateng invention would use the calculated required memory to estimate a cost to execute the test vectors. Thus, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the technique of calculating the total project cost as taught by Ohara, to improve the final product of Park and Boateng for the predictable result of generating an accurate Project cost report.

9. Regarding claim 2; Park, Boateng and Ohara disclose all the limitations of claim 1 from which claim 2 depends on, wherein Ohara also discloses receiving a billing scheme and wherein using the required memory to estimate a cost includes using the billing scheme to estimate the cost to execute the test vectors, (fig. 2), wherein the system receives integrated database information from the target billing report and the actual billing report, wherein as applied above the combined invention of Park, Boateng and Ohara would use the memory required to test the vectors to calculate the costs of the project. It would have been obvious to one of ordinary skill to retrieve or receive all of the billing costs used in the project to calculate the total cost.

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10. Regarding claim 3; Park discloses determining a required memory comprises determining a required memory needed for each of a plurality of boards of a tester to execute the test vectors for the board,(col. 10:11-21 and 12:9-16), wherein memory is allocated to the pins connected through the connectors to the boards.

11. Regarding claim 4; Park discloses determining a required memory needed for each of a plurality of pins of a tester to execute the test vectors for the pin, (col. 12:9-16).

12. Regarding claim 5; Park discloses wherein determining a required memory comprises counting the number of test vectors for each of one or more tests in the test file, (col. 12:9-19), wherein there is memory allocated to each test vector output.

13. Regarding claim 6; Park discloses determining a first memory requirement needed for a first pin of a tester to execute the test vectors for a first test in the test file; setting the required memory equal to the first memory requirement; and for each additional pin of the tester, determining a second memory requirement needed for the additional pin to execute the test vectors for the first test; and if the second memory requirement is greater than the first memory requirement, setting the required memory equal to the second memory requirement, (col. 12:9-16), wherein memory is allocated or determined for each individual signal directed to each pin of the connectors on an individual basis.

14. Regarding claim 7; Park discloses further comprising for each additional test in the test file: for each pin of the tester, determining a third memory requirement for the pin to execute the test vectors for the additional test; and setting the required memory equal to the third memory requirement if the third memory requirement is greater than the required memory, (col. 12:9-16).

15. Claims 8 & 13: Rejected under similar rationale as set forth in claim 1.

16. Claim 9: Park and Boateng as modified by Ohara discloses further comprising a user interface to display the cost to a user. The examiner views this limitation as since Park uses a computer with GUI, this computer can be used to display the cost; To do so is merely programming and a predictable result of Ohara's sole purpose to generate a costs report.

17. Claims 10 & 15: Rejected under similar rational as set forth in claim 3.

18. Claims 11 & 16: Rejected under similar rational as set forth in claim 4.

19. Claim 12: Rejected under similar rational as set forth in claim 5.

20. Claim 14: Rejected under similar rational as set forth in claim 2.

21. Claim 17: Rejected under similar rational as set forth in claim 6.

22. Examiner's Note: Examiner has cited paragraphs and figures in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK M. LEIVA whose telephone number is (571)272-2460. The examiner can normally be reached on M-Th 9:30am - 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FML 10/16/2008.

/XUAN M. THAI/

Supervisory Patent Examiner, Art Unit 3715